



Plants: Vegetative Reproduction



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Vegetative Reproduction in Plants

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Vegetative Reproduction

Vegetative reproduction

Vegetative reproduction is a form of asexual reproduction in plants. It does not involve flowers, pollination and seed production. Instead, a new plant grows from a vegetative part, usually a stem, of the parent plant. However, plants with a reproductive root system, such as those of the daisy family, can also reproduce vegetatively. Vegetative reproduction usually occurs naturally, but it can also be induced by producing a cutting. A cutting is a piece of stem which is cut from the parent plant and is planted in a pot. The plant produced naturally from stem cuttings is called a cutting. The plant produced naturally from stem cuttings and the offspring have the same characteristics as the parent.

In some cases of vegetative reproduction, the flowers are used to produce vegetative organs and small root systems, e.g. potatoes.

The different types of vegetative reproduction structures are tubers, corms, rhizomes and bulbs.

Bulbs consist of very short stems with densely packed leaves arranged in concentric circles round the stem. They have an outer shell with dried leaves, e.g. onions. A flattened bulb produces a new flowering shoot and the stored in the bulb will produce new plants.

Corms also have a short stem but in this case, it is the stem itself which usually stores food. The corms have many vegetative nodes, as well as the stem, and the vegetative nodes produce new plants.

Rhizomes are stems which grow horizontally under the ground. In some cases the underground stems are covered with leafy structures, e.g. iris. The terminal bud from the stem produces the flowering shoot and the leafy structures give rise to new plants.

Stems are also horizontal stems growing from the ground. They grow above ground. When these horizontal stems touch the ground they take root and produce new plants.

Advantages of vegetative reproduction

Some food stores are available throughout the year and the parent plant with its root system can absorb water from the soil in winter. One of the benefits of vegetative reproduction are reduced. Plants are produced in the same way as the parent, but they are able to survive, but more widely dispersed. If the parent plant is a single specimen for 1000 years, vegetative reproduction allows one single plant to spread and colonise a large area of land. In this way, the parent plant can spread to produce a dense carpet of plants with little need for competition between them. Such groups of plants are very persistent and, because of their buds and vegetative food stores, can still grow when the damage has been done by insects, fire, or other causes. These of them regarded as weeds are difficult to eradicate, even when a small piece of the parent plant has not been removed to a new colony is done.

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Wild Arum Corm



Corm of Wild Arum

Vegetative Reproduction

Background article: [Vegetative Reproduction](#)

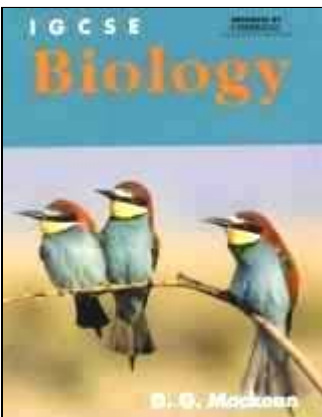
Bulbs

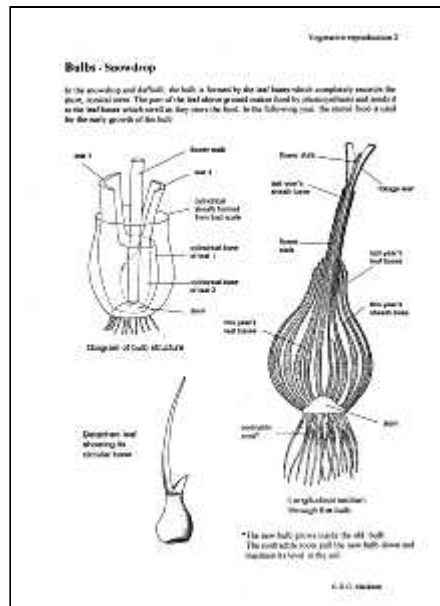
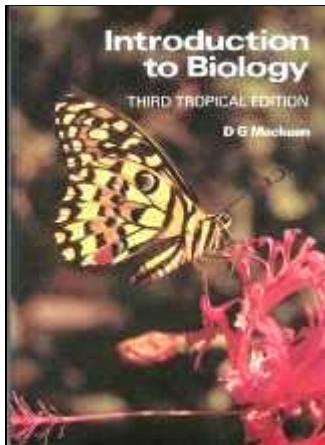
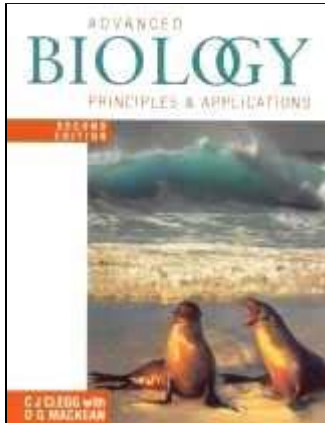
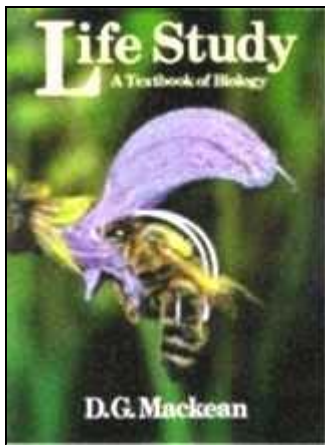
Snowdrop

Snowdrop Bulb Drawings

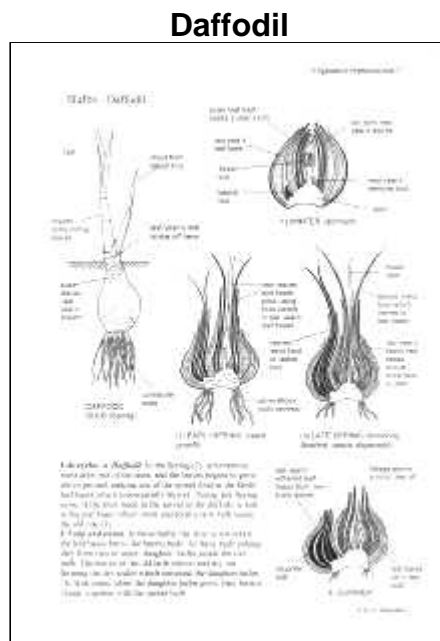


Bulb Structure

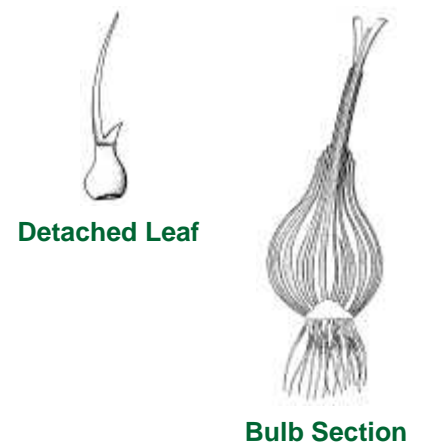




Bulbs: Snowdrop



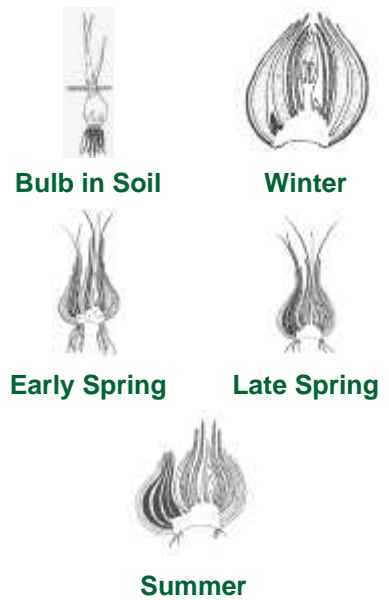
Bulbs: Daffodil



Detached Leaf

Bulb Section

Daffodil Bulb Drawings



Corms

Crocus

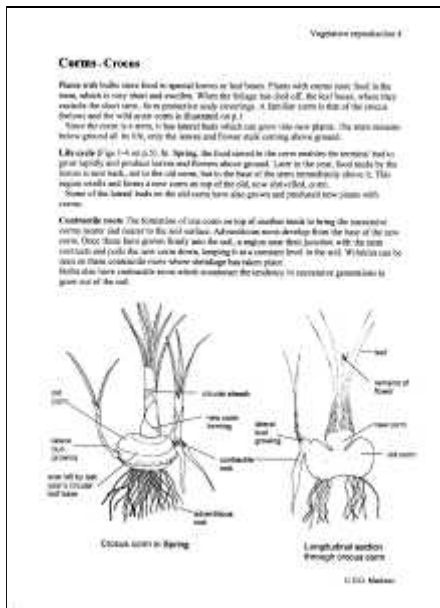
Crocus continued

Crocus Drawing

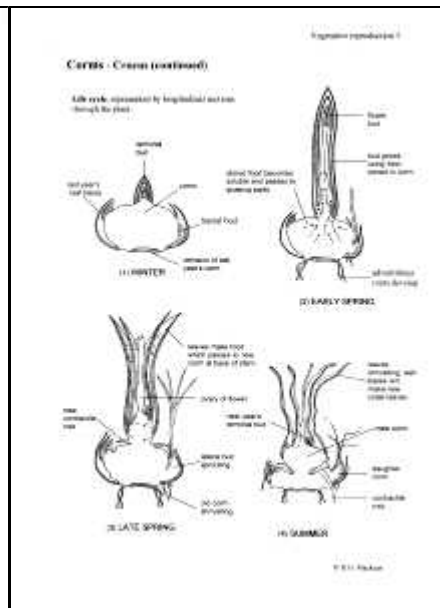


Corm in Spring

Se



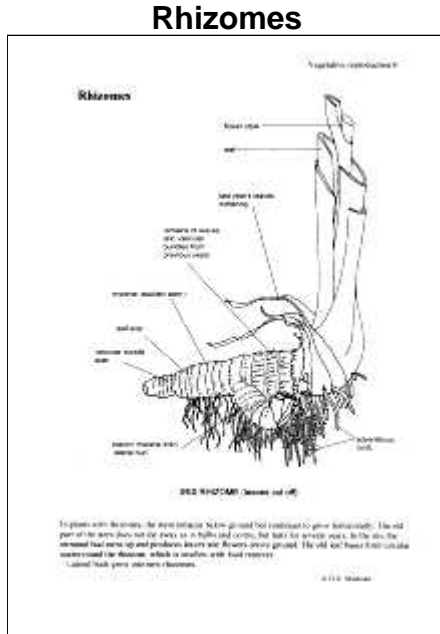
Corms: Crocus



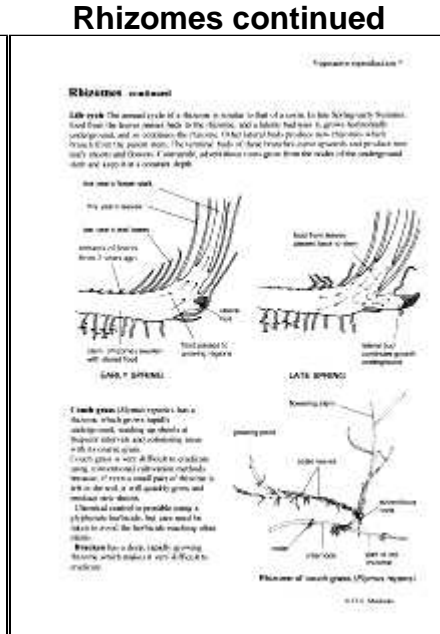
Corms: Crocus continued



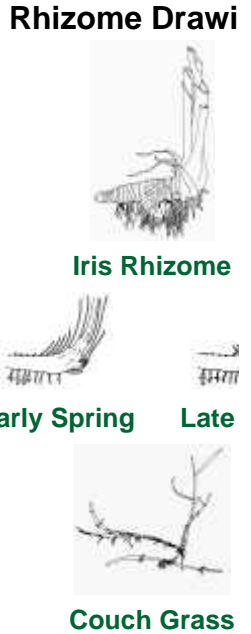
Rhizomes



Rhizomes



Rhizomes continued

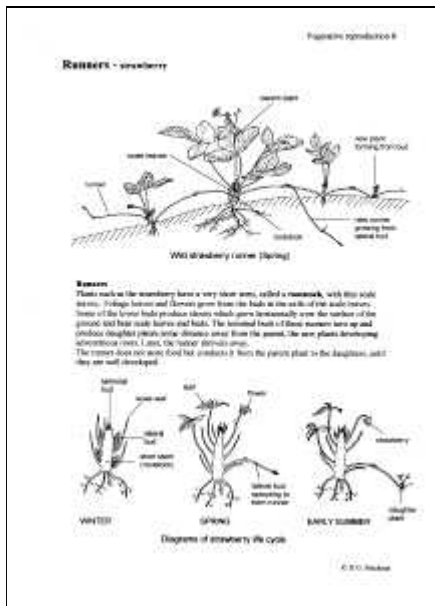


Runners

Strawberry

Strawberry Draw





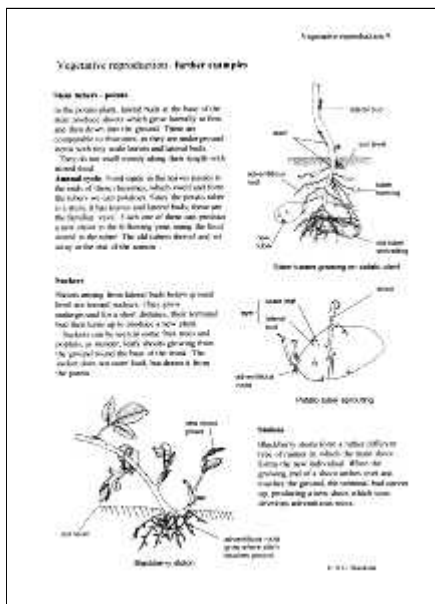
Wild strawberry ru (Spring)



Winter Spring Summer

Runners: Strawberry

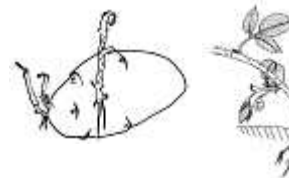
Further Examples of Vegetative Reproduction Potato & Blackberry



Potato & Blackberry Drawings



Potato Plant



Tuber Sprouting Blackberry

Further Examples

Vegetative Reproduction by Artificial Methods Grafting

Grafting Drawings

Vegetative reproduction 18

Vegetative reproduction: artificial methods

GRAFTING

A piece of stem with buds is inserted into a groove in a rootstock.

WELDING

A Y-junction is made in the stem and the cut ends are joined together.

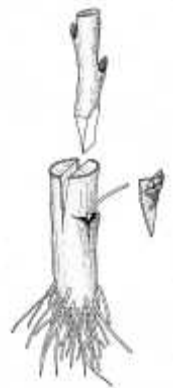
Two types of grafting:

Layering

It is possible to produce new individuals from certain plants by putting the stem end of a woody stem in contact with soil. Rooting takes place from the base of the stem into the soil while the stem continues to grow and produce leaves.

Stem cuttings

Stems are cut into small pieces of about 10-15 cm long and placed in a moist soil. The cuttings are covered with soil and watered regularly. The cuttings are covered with soil and watered regularly. The cuttings are covered with soil and watered regularly.



Two Types of Graft

Vegetative Reproduction by Artificial Methods

See Also: [Vegetative Reproduction, Tropical Examples](#)

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